



# **STA - 3200** Synchronous thermal analyzer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

# Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net



Synchronous thermal analyzer combines thermogravimetric analyzer TGA with differential thermal analyzer DTA or differential scanning calorimeter DSC. The same sample can be used to obtain the information of TGA and DTA or DSC in the same measurement.

#### Measure and study the following characteristics of materials:

DSC: melting, crystallization, phase change, reaction temperature and reaction heat, combustion heat, specific heat...

TGA: thermal stability, decomposition, redox, adsorption and desorption, free water and crystal water content, calculation of component ratio, etc

#### **Features :**

1. The furnace body is heated by double-row winding of precious metal nickel-cadmium alloy wire, which reduces interference and is more resistant to high temperatures. Advanced control system. The temperature can be controlled quickly and stably.

2. The tray sensor is made of precious metal nickel-cadmium alloy, which has the advantages of high temperature resistance, oxidation resistance, and corrosion resistance.

3. The power supply and circulating heat dissipation part are separated from the main machine to reduce the influence of heat and vibration on the micro-thermal balance.

4. Adopt top-opening structure, easy to operate. It is difficult to move the furnace body up to place the sample, and it is easy to damage the sample rod.

5. The host adopts a water area constant temperature device to isolate the thermal influence of the heating furnace body on the chassis and the micro-thermal balance.

6. Automatically generate and print test reports. The software has built-in test records, data processing and report formats, and automatically issues test reports.

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7. The furnace body can be replaced according to customer requirements



#### **Controller software advantages:**

1. Using imported 32bit ARM processor Cortex-M3 core, sampling speed and processing speed are faster.

2.24bit four-channel sampling AD collects DSC signal, TG signal and temperature T signal

3. The power supply and water circulation part are individually controlled by 8bit single-chip microcomputer to separate the host and the cooling part without interfering with each other, but the two are closely connected, and the cooling part is controlled by the host.

4. The USB two-way communication is adopted between the software and the instrument, which fully realizes remote operation. The parameter setting of the instrument and the operation stop of the instrument can be carried out through the computer software.

5.7 inch full color 24bit touch screen, better man-machine interface. TG calibration can be achieved on the touch screen.

### **Technical parameters:**

Temperature range	Room temperature~1250°C
Temperature resolution	0.01°C
Temperature fluctuation	±0.1°C
Heating rate	0.1~100°C/min
Cooling rate	1~20°C/min
Temperature control method	heating, constant temperature, cooling

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Measuring range of balance	1mg~2g
Cooling time	15min (1000°C100°C)
Resolution	0.01µg
DSC range	0∼±500mW
DSC resolution	0.01mW
Constant temperature time	0 $\sim$ 300min arbitrarily set
Display mod	character large-screen LCD display
Atmosphere	inert, oxidizing, reducing, static, dynamic
Atmosphere device	Built-in gas flow meter, including two-way gas switching and flow rate control
Software	Intelligent software can automatically record the TG curve for data processing and print experimental report
Data interface	Standard USB interface, special software (free software upgrades from time to time
Power supply	AC220V 50Hz



## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing : HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenace to reduce downtime of HPLC's	Trainings.	
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:AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-AMC's/CMC shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

#### **Our Products & Technologies**



UV/VIS Spectro 2080+ Double Beam



**Optical Emission** Spectrophotometer

Fully Automated

CLIA



Optima Gas Chromatograph 3007



Semi Auto Bio Chemistry Analyzer





TOC

Analyzer

Optima Gas Chromatograph 2979 Plus



HEMA 2062



Hematology Analyzer



Micro Plate Reader/Washer



Laser Particle

Size Analyzer

Flash Atomic Absorption Chromatograph Spectrophotometer



URINOVA 2800 Urine Analyzer



Liquid Partical

Total Organic Carbon 3800



Ion Chromatograph



Water purification system

DSC/TGA

NOVA-2100

Chemistry Analyzer



PCR/Gradient PCR/

RTPCR







#### **Regulatory compliances**



#### **Corporate Social Responsibility**

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



1.Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personallities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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